

ABSTRACT

A plurality of LC parallel resonant circuits 8, 9 composed of a plurality of coils 11, 13, which are connected in series and electrically connected to external electrodes 6, 7 at their both ends, and capacitors 12, 14 connected in parallel to the coils 11, 13, respectively, are formed inside an insulator 4 while being sequentially connected in tandem to signal wires 2, and resonance frequencies of the respective LC parallel resonant circuits 8, 9 are set to be different from each other. Further, a shield electrode 23 is disposed between the coils 11, 13, the shield electrode 23 also serving a capacitance-forming electrode for preventing magnetic coupling between the two coils.